CLAIMS:-

1. An apparatus for swaging an end of a tubular, the apparatus comprising a swaging head for providing the swage to the end of the tubular, wherein the swaging head has two or more swaging formations provided thereon to permit swaging of differing diameters of tubular ends.

2. An apparatus according to claim 1, wherein the swaging formation is provided on an internal bore of the swaging head, such that the internal bore of the swaging head is capable of engaging the outer diameter of the tubular end to provide the swage thereto.

3. An apparatus according to claim 2, wherein each swaging formation comprises a first diameter of the swaging head, a second diameter being smaller than the first diameter, a third diameter being smaller than the second diameter, and a fourth diameter being smaller than the third diameter.

4. An apparatus according to claim 3, wherein the internal bore of the swaging head tapers substantially linearly inwardly, with respect to the longitudinal axis of the swaging head, from the first diameter to the second diameter, and from the second diameter to the third diameter.

5. An apparatus according to claim 4, wherein the angle of the taper from the first to the second diameter is greater than the angle of the taper from the second to third diameter.

6. An apparatus according to either of claims 4 or 5, wherein the surface of the internal bore of the swaging

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head provided by the taper from the first to the second diameter is a guiding surface, and the surface provided by the taper from the second to third diameter is a swaging surface.

7. An apparatus according to any of claims 3 to 6, wherein the surface of the internal bore of the swaging head from the second/third diameter to the third/fourth diameter is arranged to be substantially perpendicular to the longitudinal axis of the swaging head.

8. An apparatus according to claim 7, wherein the surface of the internal bore of the swaging head from the second/third diameter is arranged to provide a shoulder or a stop surface against which the tubular end arrests, in use.

9. An apparatus according to any of claims 3 to 8, wherein the swaging head is arranged with at least first and second swaging formations, whereby the fourth diameter of the first swaging formation is greater than the first diameter of the second swaging formation.

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10. An apparatus according to any of claims 3 to 9, wherein the first diameter of the first swaging formation is the closest diameter of all of the diameters of all of the swaging formations to the tubular end, in use.

11. An apparatus according to claim 1, wherein the swaging formation is provided on an external diameter of the swaging head, such that the external diameter of the swaging head engages the inner diameter of the tubular end to provide the swage thereto.

12. An apparatus according to claim 11, wherein each

swaging formation comprises a first diameter of the swaging head, a second diameter being greater than the first diameter, a third diameter being greater than the second diameter, and a fourth diameter being greater than the third diameter.

13. An apparatus according to claim 12, wherein the external diameter of the swaging head tapers substantially linearly outwardly, with respect to the longitudinal axis of the swaging head, from the first diameter to the second diameter, and from the second diameter to the third diameter.

14. An apparatus according to claim 13, wherein the angle of the taper from the first to the second diameter is greater than the angle of the taper from the second to third diameter.

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15. An apparatus according to either of claims 13 or 14, wherein the surface of the external diameter of the swaging head provided by the taper from the first to the second diameter is a guiding surface, and the surface provided by the taper from the second to third diameter is a swaging surface.

16. An apparatus according to any of claims 12 to 15, wherein the surface of the external diameter of the swaging head from the second/third diameter to the third/fourth diameter is arranged to be substantially perpendicular to the longitudinal axis of the swaging head.

17. An apparatus according to claim 16, wherein the surface of the external diameter of the swaging head from the second/third diameter to the third/fourth diameter is arranged to provide a shoulder or a stop

surface against which the tubular end arrests, in use.

18. An apparatus according to any of claims 12 to 17, wherein the swaging head is arranged with at least first and second swaging formations, whereby the fourth diameter of the first swaging formation is smaller than the first diameter of the second swaging formation.

19. An apparatus cording to any of claims 12 to 18, wherein the first diameter of the first swaging formation is the closest diameter of all of the diameters of all of the swaging formations to the tubular end, in use.

20. An apparatus for swaging an end of a tubular, the apparatus comprising a swaging head for swaging the end of the tubular, and a stop plate for abutment against the other end of the tubular, the swaging head and the stop plate being movably coupled to one another.

21. An apparatus according to claim 20, wherein movement of the swaging head and the stop plate toward one another facilitates swaging of the said one end of the tubular.

22. An apparatus according to either of claims 20 or 21, wherein the swaging head is moveable toward the stop plate by means of a piston.

23. An apparatus according to any of claims 20 to 22, wherein the swaging head and the stop plate are movably coupled to one another by a frame.

24. An apparatus according to claim 23, wherein the frame is adjustable such that the distance between the stop plate and the swaging head can be further varied

by means of adjustment of the frame.

25. An apparatus according to either of claims 23 or 24, wherein the frame comprises at least one member coupled to both of the swaging head and the stop plate.

26. An apparatus according to claim 25, wherein the coupling between the member and at least one of the stop plate and swaging head is capable of adjustment in order to vary the length of the member between the swaging head and the stop plate.

27. An apparatus according to either of claims 25 or 26, wherein the coupling between the member and the stop plate comprises a screw thread engagement.

28. An apparatus according to any of claims 20 to 27, wherein the stop plate comprises a bore and a device for obturating the bore, such that when the device obturates the bore, the device abuts the said other end of the tubular, in use.

29. An apparatus according to claim 28, wherein the device is removable from the stop plate such that a tubular to be swaged may be passed through the bore of the stop plate.

30. An apparatus for swaging an end of a tubular, the apparatus comprising a swaging head for swaging the end of the tubular, and a clamping device for clamping the tubular, the clamping device being split into at least three part-circular clamping segments which clamp substantially around the outer circumference of a portion of the tubular to permit it to be swaged.

31. An apparatus according to claim 30, wherein there

are at least four part-circular clamping segments which clamp substantially around the outer circumference of the tubular to permit it to be swaged.

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32. An apparatus according to either of claims 30 or 31, wherein there are two clamping devices provided, a forward clamping device which is arranged to be closest to the swaging head, and a rear clamping device which is arranged to be furthest from the swaging head.

33. An apparatus according to any of claims 30 to 32, wherein the clamping segments are housed within a clamping ring.

34. An apparatus according to claim 33, wherein the clamping segments are mounted on the clamping ring in an arrangement such that the segments can move with respect to the ring.

35. An apparatus according to claim 34, wherein the clamping segments can move only to a relatively small degree with respect to the ring.

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36. An apparatus according to any of claims 33 to 35, wherein the clamping ring is split into at least two part circular members.

37. An apparatus according to claim 36, wherein the two part circular members are hinged together.

38. An apparatus according to claim 37, wherein the two part circular members are hinged together such that the ring is capable of being opened to permit a tubular to be inserted into the ring, and closed to clamp the segments around the tubular.

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39. An apparatus according to any of claims 33 to 38, wherein a range of segments can be housed within the ring.

40. An apparatus according to claim 39, wherein the range of segments is of varying radial thickness, to permit a range of differing diameter tubulars to be clamped.

41. An apparatus for swaging a tubular, the apparatus comprising a swaging head for swaging the end of the tubular, and a clamping device for clamping the tubular, the clamping device having a plurality of teeth for gripping the outer surface of the tubular, and a plurality of grooves formed between the teeth, wherein the gripping surface of each tooth is substantially parallel to the longitudinal axis of the tubular to be gripped.

42. An apparatus according to claim 41, wherein the grooves are formed with two side walls which are substantially perpendicular to the longitudinal axis of the tubular to be gripped.

43. An apparatus according to claim 42, wherein the grooves are formed with a lowermost surface which is substantially parallel to the longitudinal axis of the tubular to be gripped.

44. A clamping device for use with the apparatus of claim 41, the clamping device comprising a plurality of teeth for gripping the outer surface of a tubular, and a plurality of grooves formed between the teeth; wherein the gripping surface of each tooth is substantially parallel to the longitudinal axis of the tubular to be gripped.